

IN THE CLAIMS:

A status of all the claims of the present Application is presented below:

1. **(Currently amended)** A method for manipulating a plurality of correlithm objects, comprising:

establishing a plurality of correlithm objects of a space, the space comprising an N-dimensional space, a correlithm object comprising a point of the space;

imposing the plurality correlithm objects on the space to yield a combined point;

comparing an imposed correlithm object to the combined point; and

recovering the imposed correlithm object in accordance with the comparison to impose at least one correlithm object token in a shared resource.

2. **(Original)** The method of Claim 1, further comprising randomly generating the plurality of correlithm objects.

3. **(Original)** The method of Claim 1, wherein imposing the plurality correlithm objects on the space to yield the combined point further comprises performing an imposing operation on the plurality of correlithm objects.

4. **(Original)** The method of Claim 1, wherein comparing the imposed correlithm object to the combined point further comprises performing a recovery operation on the imposed correlithm object and the combined point.

5. **(Original)** The method of Claim 1, further comprising:

establishing one or more agents, each agent associated with a state pace; and

assigning one or more of the plurality of correlithm objects to each agent, the one or more correlithm objects representing a state of the agent to which the one or more correlithm objects are assigned.

6. **(Original)** The method of Claim 1, wherein the plurality of correlithm objects are nearly orthogonal.

7. **(Original)** The method of Claim 1, further comprising utilizing a correlithm object of the plurality of correlithm objects as a correlithm object token.

8. **(Original)** The method of Claim 1, wherein imposing the plurality correlithm objects on the space to yield the combined point further comprises performing computation using the plurality of correlithm objects.

9. **(Original)** The method of Claim 1, wherein imposing the plurality correlithm objects on the space to yield the combined point further comprises storing the plurality of correlithm objects.

10. **(Original)** The method of Claim 1, wherein imposing the plurality correlithm objects on the space to yield the combined point further comprises communicating the plurality of correlithm objects.

11. **(Currently amended)** A system for manipulating a plurality of correlithm objects, comprising:

an overlap generator operable to:

establish a plurality of correlithm objects of a space, the space comprising an N-dimensional space, a correlithm object comprising a point of the space; and

impose the plurality correlithm objects on the space to yield a combined point; and

a recoverer coupled to the overlap generator and operable to:

compare an imposed correlithm object to the combined point; and

recover the imposed correlithm object in accordance with the comparison to impose at least one correlithm object token in a shared resource.

12. **(Original)** The system of Claim 11, further comprising a processor coupled to the overlap generator and operable to randomly generate the plurality of correlithm objects.

13. **(Original)** The system of Claim 11, the overlap generator and operable to impose the plurality correlithm objects on the space to yield the combined point by performing an imposing operation on the plurality of correlithm objects.

14. **(Original)** The system of Claim 11, the recoverer operable to compare the imposed correlithm object to the combined point by performing a recovery operation on the imposed correlithm object and the combined point.

15. **(Original)** The system of Claim 11, further comprising a processor coupled to the overlap generator and operable to:

establish one or more agents, each agent associated with a state space; and
assign one or more of the plurality of correlithm objects to each agent, the one or more correlithm objects representing a state of the agent to which the one or more correlithm objects are assigned.

16. **(Original)** The system of Claim 11, wherein the plurality of correlithm objects are nearly orthogonal.

17. **(Original)** The system of Claim 11, further comprising a processor coupled to the overlap generator and operable to utilize a correlithm object of the plurality of correlithm objects as a correlithm object token.

18. **(Original)** The system of Claim 11, the overlap generator and operable to impose the plurality correlithm objects on the space to yield the combined point by performing computation using the plurality of correlithm objects.

19. **(Original)** The system of Claim 11, the overlap generator and operable to impose the plurality correlithm objects on the space to yield the combined point by storing the plurality of correlithm objects.

20. **(Original)** The system of Claim 11, the overlap generator and operable to impose the plurality correlithm objects on the space to yield the combined point by communicating the plurality of correlithm objects.

21. **(Currently amended)** Logic for manipulating a plurality of correlithm objects, the logic embodied in a medium and operable to:

establish a plurality of correlithm objects of a space, the space comprising an N-dimensional space, a correlithm object comprising a point of the space; impose the plurality correlithm objects on the space to yield a combined point;
compare an imposed correlithm object to the combined point; and
recover the imposed correlithm object in accordance with the comparison to impose at least one correlithm object token in a shared resource.

22. **(Original)** The logic of Claim 21, further operable to randomly generate the plurality of correlithm objects.

23. **(Original)** The logic of Claim 21, operable to impose the plurality correlithm objects on the space to yield the combined point by performing an imposing operation on the plurality of correlithm objects.

24. **(Original)** The logic of Claim 21, operable to compare the imposed correlithm object to the combined point by performing a recovery operation on the imposed correlithm object and the combined point.

25. **(Original)** The logic of Claim 21, further operable to:
establish one or more agents, each agent associated with a state space; and
assign one or more of the plurality of correlithm objects to each agent, the one or more correlithm objects representing a state of the agent to which the one or more correlithm objects are assigned.

26. **(Original)** The logic of Claim 21, wherein the plurality of correlithm objects are nearly orthogonal.

27. **(Original)** The logic of Claim 21, further operable to utilize a correlithm object of the plurality of correlithm objects as a correlithm object token.

28. **(Original)** The logic of Claim 21, operable to impose the plurality correlithm objects on the space to yield the combined point by performing computation using the plurality of correlithm objects.

29. **(Original)** The logic of Claim 21, operable to impose the plurality correlithm objects on the space to yield the combined point by storing the plurality of correlithm objects.

30. **(Original)** The logic of Claim 21, operable to impose the plurality correlithm objects on the space to yield the combined point by communicating the plurality of correlithm objects.

31. **(Currently amended)** A system for manipulating a plurality of correlithm objects, comprising:

means for establishing a plurality of correlithm objects of a space, the space comprising an N-dimensional space, a correlithm object comprising a point of the space;

means for imposing the plurality correlithm objects on the space to yield a combined point;

means for comparing an imposed correlithm object to the combined point; and
means for recovering the imposed correlithm object in accordance with the comparison to impose at least one correlithm object token in a shared resource.

32. **(Currently amended)** A method for manipulating a plurality of correlithm objects, comprising:

establishing a plurality of correlithm objects of a space, the space comprising an N-dimensional space, a correlithm object comprising a point of the space, the plurality of correlithm objects being randomly generated, the plurality of correlithm objects being nearly orthogonal, a correlithm object of the plurality of correlithm objects being utilized as a correlithm object token;

imposing the plurality correlithm objects on the space to yield a combined point by performing an imposing operation on the plurality of correlithm objects, the plurality correlithm objects imposed to perform at least one of: performing computation using the plurality of correlithm objects, communicating the plurality of correlithm objects, and storing the plurality of correlithm objects;

comparing an imposed correlithm object to the combined point by performing a recovery operation on the imposed correlithm object and the combined point;

recovering the imposed correlithm object in accordance with the comparison;

establishing one or more associated with a state space; and

assigning one or more of the plurality of correlithm objects to each agent, the one or more correlithm objects representing a state of the agent to which the one or more correlithm objects are assigned to impose at least one correlithm object token in a shared resource.

33. **(Currently amended)** A method for generating tokens, comprising:

randomly generating a plurality of correlithm objects of a space, the space comprising an N-dimensional space, a correlithm object comprising a point of the space;
and

selecting one or more of the plurality of correlithm objects as one or more correlithm object tokens, the one or more correlithm object tokens being nearly orthogonal to impose at least one correlithm object token in a shared resource.

34. **(Original)** The method of Claim 33, wherein randomly generating the plurality of correlithm objects of the space further comprises generating a random correlithm object by randomly selecting one or more values for one or more entries of the random correlithm object.

35. **(Original)** The method of Claim 33, further comprising:
selecting a correlithm object of the plurality of correlithm objects;
generating a token complement of the selected correlithm object; and
using the token complement as a correlithm object token.

36. **(Original)** The method of Claim 33, wherein selecting the one or more of the plurality of correlithm objects as the one or more correlithm object tokens further comprises:

establishing a distance threshold associated with a standard metric of the plurality of correlithm objects; and

selecting the one or more correlithm objects that satisfy the distance threshold as the one or more correlithm object tokens.

37. **(Currently amended)** A system for generating tokens, comprising:
a memory operable to store information; and
a processor coupled to the memory and operable to:
randomly generate a plurality of correlithm objects of a space, the space comprising an N-dimensional space, a correlithm object comprising a point of the space;
and

select one or more of the plurality of correlithm objects as one or more correlithm object tokens, the one or more correlithm object tokens being nearly orthogonal to impose at least one correlithm object token in a shared resource.

38. **(Original)** The system of Claim 37, the processor operable to randomly generate the plurality of correlithm objects of the space by generating a random correlithm object by randomly selecting one or more values for one or more entries of the random correlithm object.

39. **(Original)** The system of Claim 37, the processor further operable to:
select a correlithm object of the plurality of correlithm objects;
generate a token complement of the selected correlithm object; and
use the token complement as a correlithm object token.

40. **(Original)** The system of Claim 37, the processor further operable to select the one or more of the plurality of correlithm objects as the one or more correlithm object tokens by :

establishing a distance threshold associated with a standard metric of the plurality of correlithm objects; and

selecting the one or more correlithm objects that satisfy the distance threshold as the one or more correlithm object tokens.

41. **(Currently amended)** Logic for generating tokens, the logic embodied in a medium and operable to:

randomly generate a plurality of correlithm objects of a space, the space comprising an N-dimensional space, a correlithm object comprising a point of the space;
and

select one or more of the plurality of correlithm objects as one or more correlithm object tokens, the one or more correlithm object tokens being nearly orthogonal to impose at least one correlithm object token in a shared resource.

42. **(Original)** The logic of Claim 41, operable to randomly generate the plurality of correlithm objects of the space by generating a random correlithm object by randomly selecting one or more values for one or more entries of the random correlithm object.

43. **(Original)** The logic of Claim 41, further operable to:
select a correlithm object of the plurality of correlithm objects;
generate a token complement of the selected correlithm object; and
use the token complement as a correlithm object token.

44. **(Original)** The logic of Claim 41, operable to select the one or more of the plurality of correlithm objects as the one or more correlithm object tokens by:
establishing a distance threshold associated with a standard metric of the plurality of correlithm objects; and
selecting the one or more correlithm objects that satisfy the distance threshold as the one or more correlithm object tokens.

45. **(Currently amended)** A system for generating tokens, comprising:
means for randomly generating a plurality of correlithm objects of a space, the space comprising an N-dimensional space, a correlithm object comprising a point of the space; and
means for selecting one or more of the plurality of correlithm objects as one or more correlithm object tokens, the one or more correlithm object tokens being nearly orthogonal to impose at least one correlithm object token in a shared resource.

46. **(Currently amended)** A method for generating tokens, comprising:
randomly generating a plurality of correlithm objects of a space, the space comprising an N-dimensional space, a correlithm object comprising a point of the space,

the plurality of correlithm objects generated by randomly selecting one or more values for one or more entries of the random correlithm object;

selecting one or more of the plurality of correlithm objects as one or more correlithm object tokens, the one or more correlithm object tokens being nearly orthogonal, the one or more of the plurality of correlithm objects selected by:

establishing a distance threshold associated with a standard metric of the plurality of correlithm objects; and

selecting the one or more correlithm objects that satisfy the distance threshold as the one or more correlithm object tokens;

selecting a correlithm object of the plurality of correlithm objects;

generating a token complement of the selected correlithm object to impose at least one correlithm object token in a shared resource; and

using the token complement as a correlithm object token.